

REMARKS

In accordance with the foregoing, claims 38-40, 45-48, and 71 are amended and new claim 75 is presented. No new matter is presented, and approval and entry of the amended claims and new claim are respectfully requested.

Claims 41 - 44 and claims 49 - 67 are cancelled herein without prejudice or disclaimer. Claims 38 - 40, 45-48, 71-73, and 75 are pending and under consideration.

Claim Amendments

Independent claim 38 is amended herein to recite a relay including "wherein at least one of said first, second and third condenser plates induces a charge distribution in said conducting element that forces said conducting element to move along the intermediate space, . . . wherein a closing of the electric circuit is not affected by a voltage of the conductive element."

Support for the amendment is found for example, on page 3, line 31 to page 4 line 1, page 4, line 32 to page 5, line 3, and page 20, lines 7 to 10 of the specification.

Dependent claims 39, 40, 45, and 71 are amended herein to correct informalities.

Independent claim 46 is amended herein to recite limitations of dependent claims 47 and 48. Dependent claims 47 and 48 are amended accordingly.

No new matter is presented, and approval and entry of new claim are respectfully requested.

Page 7: Allowable Subject Matter

On page 7 of the Office Action the Examiner indicates that dependent claims 47 and 48 recite allowable subject matter. Applicant thanks the Examiner for the indication of allowable subject matter. (See, Office Action at page 7, lines 8-10).

The Examiner objects to claims 47- 48 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. (See, Office Action at page 7, lines 8-10).

Claim 46 is amended herein to include limitations of dependent claims 47 and 48 that the Applicant believes the Examiner holds as allowable subject matter. Accordingly, Applicant submits that independent claim 46 (and dependent claims 47-48) are allowable. Thus, the objection to claims 47 and 48 should be withdrawn.

Page 2: Rejection of claim 38 under 35 U.S.C. §112, second paragraph

On page 2 of the Office Action, the Examiner rejects claim 38 under 35 U.S.C. §112,

second paragraph, as being indefinite. The Examiner asserts:

[I]t is understood . . . that the Applicants intend to claim that the voltage of the conductor does not affect the closing of the electric switch.

(See, Office Action at page 2, lines 16-18).

Applicant submits that the Examiner's understanding is correct. Claim 38 is amended herein to reflect the Examiner's understanding.

Conclusion

Applicant submits that claim 38 complies with 35 U.S.C. §112, second paragraph. Thus, the rejection should be withdrawn.

Pages 3-7: Rejection of claims 38-40, 45-46, and 71-74 under 35 U.S.C. §102(e)

On pages 3-5 of the Office Action, the Examiner rejects independent claim 38 (and dependent claims 39-40, 45, and 71-73) and independent claim 46 under 35 U.S.C. §102(e) as being anticipated by Deligianni et al. (U.S.P. 6,917,268).

The rejection is traversed. As set forth in MPEP §2131, to establish anticipation under §102, the reference relied on in support of the rejection must teach each and every element of the claim and the identical invention must be shown in as complete detail as in the claim.

Applicant submits that Deligianni does not teach each and every element of each of the independent claims. For example, independent claim 38 recites a miniaturized relay including:

a) "a first condenser plate; a second condenser plate facing said first condenser plate . . . smaller than or equal to said first plate; an intermediate space;"

b) "a conductive element arranged in said intermediate space . . . being a detached part for movement freely along the intermediate space between a first end of said intermediate space, defining a first zone, and a second end of said intermediate space, defining a second zone, said movement depending on voltages present in said first and second condenser plates, where said first condenser plate is arranged in said first zone and said second condenser plate is arranged in said second zone;"

c) "a third condenser plate arranged in said second zone . . . smaller than or equal to said first condenser plate, and in which said second and third condenser plates are, together, larger than said first condenser plate;"

d) ". . . first and second contact points define first stops; wherein, when said element contacts said first stops said conductive element closes said electric circuit,"

e) "wherein at least one of said first, second and third condenser plates induces a charge distribution in said conducting element that forces said conducting element to move along the

intermediate space."

f) "wherein, when said element contacts said first stops said conductive element closes said electric circuit, and"

g) "wherein a closing of the electric circuit is not affected by a voltage of the conductive element." (Emphasis added).

That is, according to an exemplary embodiment, as recited by claim 38, for example, electric fields of condenser plates induce a charge distribution in the conducting element which generates an electrostatic force which is the one that moves the element.

Applicant submits that as recited by claim 38, the relay is capable of performance of an action of "a closing of the electric circuit" (That is, there is a movable piece of the relay having a metallic surface which contacts the two contacts of the external circuit), and an action that some charge distributions are induced in a part, e.g., metallic piece that move the moveable part of the relay.

As recited by independent claim 38, the relay includes "... at least one of said first, second and third condenser plates induces a charge distribution in said conducting element that forces said conducting element to move along the intermediate space, wherein, when said element contacts said first stops said conductive element closes said electric circuit." That is, according to an exemplary embodiment, both actions e.g., a closing of the electric circuit and inducing of charge distributions can be performed by a same metallic piece.

By contrast with the recitation of independent claim 38, Deligianni merely teaches:

FIG. 1 shows . . . preferred embodiment . . . lateral switch includes an insulating long arm 6, that is connected (e.g., fixed) to "hammer"-shaped arm 7 provided with two metallic contacts C1, C2. The structure 6,7 is free to move about laterally in directions of an Arrow, and the longer the center arm 6, the less stress at a location of an anchor 8A. The beam 6 is anchored on one side by means of the anchor arrangement 8A and is free to move about laterally. The beam 6 has two conductive electrodes A1, A2 provided on both sides that are kept at ground. If a positive potential V is applied on electrode V1, then an attractive electrostatic force develops between V1 and A1 and as a result, the hammer shaped arm will tend to move laterally toward contacts 2, 4. If C1 is a metal, then an ohmic contact will be established between 2, 4 and C1. When an RF or AC signal is fed through line 1, then when the switch 100 is closed through 2, C1 and contact and line 4, this will allow the RF signal to pass through contact and line 4

(See, for example, Fig. 1, and col. 3, line 55 - col. 3, line 10).

That is, Deligianni teaches that a metallic surface of "a closing of the electric circuit" is metallic contact C1 or metallic contacts C1, but that some charge distributions are induced in a

part, e.g., metallic piece that move the moveable part of the relay by a different part, e.g., conductive electrodes A1, A2.

That is, by contrast with the recitation of claim 38, Deligianni merely teaches different pieces that are not in electrical contact with each other, with one metallic piece responsible for establishing an electrical contact, and a different piece from the piece(s) on which induced the charge distributions are induced in order to move the moveable element of the relay.

Accordingly, Deligianni does not teach a relay including "... wherein at least one of said first, second and third condenser plates induces a charge distribution in said conducting element that forces said conducting element to move along the intermediate space, wherein, when said element contacts said first stops said conductive element closes said electric circuit, and wherein a closing of the electric circuit is not affected by a voltage of the conductive element," as recited by claim 38, for example.

Thus, the rejection of claim 38 should be withdrawn

* * *

Dependent claims 39-40, 45, and 71-73 inherit the patentable recitations of base claim 38 and therefore, patentably distinguish over the cited art for at least the reasons discussed above. Thus, the rejection of claim 39-40, 45, and 71-73 should be withdrawn

* * *

Independent claim 46 is amended herein to include limitations of dependent claims 47 and 48 that the Applicants believe the Examiner holds as allowable subject matter. Thus, the rejection should be withdrawn.

Conclusion

Since each and every element recited by each of independent claim 38 (and dependent claims 39-40, 45, and 71-73) and independent claim 46 are not taught by Deligianni, the rejection should be withdrawn and claims 38 -40, 45-46, and 71-73 allowed.

New Claim

New claim 75 recites features of the present invention in a different fashion. Claim 75 recites a miniaturized relay including a first condenser plate in a first zone; a second condenser plate and a third condenser plate in a second zone; and a conductive element that is not in electrical contact with walls that define a space when moving, wherein at least one of said first, second and third condenser plates induces a charge distribution in the conductive element that forces said conductive element to move between a one end of a space and defining the first zone, and an other end of the space defining the second zone.

Support for the new claim is found for example, on page 3, line 31 to page 4, line 1, page 4 line 32 to page 5 line 3, and page 20 lines 7 to 10 of the specification. No new matter is presented, and approval and entry of new claim are respectfully requested.

These features of claim 75 patentably distinguish over the cited art, and they are submitted to be allowable for the recitation therein.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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